AMENDMENTS TO THE CLAIMS of SN 09/886,909

Please amend the claims as follows.

9(Amended). A power module for an avionics system, said power module for down-converting electrical voltage distributed by the main generator of an aircraft to a lower voltage suitable for powering electronic circuits and maintaining electrical isolation between said electrical voltage and said lower voltage, comprising:

a housing, said housing being of a rectangular shape and having a length that is substantially greater than depth thereof ~~shallow in depth~~;

a battery; a electronic switch; and a multi-layer printed circuit board located inside said housing;

an electrical connector, said electrical connector having a front side and a back side; said front side having connector contacts extending therefrom and said back side containing electrical leads for connecting associated contacts in an electronic circuit; said electrical connector being supported in and closing an end of said housing with said front side and said contacts of said connector extending outwardly from said end of said housing;

said printed circuit board being wired to contacts of said connector and supported on the backside of said connector within said housing;

a tempest filter, said tempest filter having an input for receiving main voltage from said aircraft generator and providing first and second electrically isolated outputs, said input of said tempest filter being wired to a first contact of said connector;

a controlled power conversion circuit; said power conversion circuit including an input and an output, said input being connected to a first output of said filter and said output being wired to a second contact of said connector for connection to a first input of said electronic switch;

a controlled battery charger, said battery charger having an input connected to a second one of said outputs of said filter, said battery charger having an output coupled to said rechargeable battery for supplying charging current to said rechargeable battery;

a battery output regulator and a smoothing output filter, said battery output regulator having an input coupled to said battery and an output coupled to an input of said smoothing filter, said smoothing filter having an output wired to a third conductive pin of said connector for coupling to a second input of said electronic switch; said output regulator for regulating current supplied by said battery into said output filter;

a controller:

said controller having an input connected to said first output of said tempest filter for determining the presence of main voltage and an output connected to an input of said primary transformer and to a control input of said output regulator for monitoring and controlling the load voltage and current outputted from said regulator to predetermined respective levels when said main voltage is present;

said controller having a second input connected to said second output of said tempest filter for monitoring the presence of said main voltage and a second output connected to a control input of said battery charger and to a control input of said battery output regulator for monitoring and controlling the charging current outputted by said battery charger to said battery when said main voltage is present and for controlling the output voltage and current from said battery power regulator to a prescribed level when said main voltage is not present;

said electronic switch having a first conductive state for outputting current applied to said first input of said electronic switch by said first output filter and said capacitor; and a second conductive state for outputting current applied to said second input of said electronic switch by said second output filter, said electronic switch being normally in said first conductive state and being switched from said first conductive state to said second conductive state only when current through said electronic switch when in said first conductive state drops to the sustenance level of said electronic switch ; and

said controller having a fifth output for controlling the state of said electronic switch.